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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,158	06/19/2003	Timothy J. Bardzil	4366-133	6927
48500	7590	06/14/2007		
SHERIDAN ROSS P.C. 1560 BROADWAY, SUITE 1200 DENVER, CO 80202			EXAMINER NANO, SARGON N	
			ART UNIT 2157	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/601,158	<b>Applicant(s)</b> BARDZIL ET AL.	
	<b>Examiner</b> Sargon N. Nano	<b>Art Unit</b> 2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 January 1941.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 - 41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/03 4/04 12/06</u> | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is responsive to application filed on June 19, 2003. Claims 1 – 41 is pending examination.

#### ***Specification***

The abstract of the disclosure is objected . Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what 'whether load balancing is in effect at the first router' on line 11 – 12, means but it is examined as best understood by examiner. Moreover it is not clear how the comparison of T T L or time to live of test packet is compared to the second number of hops. Clarification is required

Claim 2 recites the limitation "the selected subnetwork" in line 6. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1- 41 are rejected under 35 U.S.C. 102(e) as being anticipated by  
Augart. U. S. Patent No. 7,200673 .

As to claim 1 and 12 Augart teaches a method for detecting load balancing and a method for identifying per-packet load balancing in a distributed processing network, comprising:

providing a baseline topology (see col. 5 lines 1 – 35, Augart discloses an originator of data packet) ;

selecting, from the baseline topology, first and second addresses associated with first and second routers, respectively, wherein the first router has an associated first hop count relative to a selected node and the second router an associated second hop count relative to the selected node and wherein the first hop count is less than the

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second hop count (see col.4 lines 9 – 27, Augart discloses tracing a route from a target node using a TTL or time to live field to find the shortest link via the closest router) ;

transmitting at least one test packet, the at least one test packet having a time to live equal to or greater than the second hop count (see col. 3 line 60 – col. 4 line 8

Augart discloses receiving time exceeding packet returned time) ;

receiving at least one response associated with the test packets; and  
determining, based on the at least one response, whether load balancing is in effect at the first router (see col. 3 lines 4 – 32, Augart discloses a load balancing is achieved when links are configured to route the communication via multiple routers) .

As to claim 2 and 13, Augart teaches the method of claim 1, further comprising:

selecting a network object; identifying a first set of unique addresses within the selected network object; creating a second set of unique addresses, wherein the second set is the union of the first set and a third set of router interface addresses associated with routers between the selected node and the selected subnetwork, wherein the first and second addresses are included within the third set (see col. 5 line 36 – 67 ).

As to claim 3, Augart teaches, the method of claim 2, further comprising:

determining whether the second address is contactable, wherein the network object is an edge subnetwork, and the steps of claims 1 and 2 are repeated for each of a plurality of network objects (see col.2 line 45 - col.3 line 3).

As to claim 4, Augart teaches the method of claim 1, wherein the time to live is equal to the second hop count, wherein the second hop count exceeds the first hop

count by one hop, and wherein the steps of claim 1 are repeated for each of a plurality of routers in a set of routers (see col. 3 line 60 – col. 4 line 28).

As to claim 5, Augart teaches the method of claim 1, wherein in the determining step per-packet load balancing is in effect when the at least one test packet is a plurality of test packets having a common source and destination addresses and at least two different routers responded to the at least one test packet (see col.3 lines 4 – 32).

As to claim 6, Augart teaches the method of claim 5, further comprising, when per-packet load balancing is in effect: instantiating a cloud between the first router and a selected subnetwork (see col.3 lines 4 – 32).

As to claim 7, Augart teaches the method of claim 1, wherein in the determining step one of per-destination and per-source/destination load balancing is in effect when the at least one test packet is a plurality of test packets having a common source address but differing destination addresses and at least two different routers responded to the at least one test packet (see col.3 lines 4 – 32).

As to claim 8, Augart teaches the method of claim 1, wherein the determining step comprises: first determining whether per-packet load balancing is in effect; and second determining whether at least one of per-destination and per-source/destination load balancing is in effect (see col. 3 lines 4 – 31).

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As to claim 9 Augart teaches, the method of claim 8, further comprising:  
determining whether or not asymmetry is present between the first and second routers  
(see col. 3 lines 4 – 31).

As to claim 10, Augart teaches a computer readable medium containing  
instructions operable to perform the steps of claim 1(see col. 5 lines 1 – 35, col.4 lines 9  
–27, col. 3 line 60 – col. 4 line 8).

As to claim 11, Augart teaches a logic circuit operable to perform the steps of  
claim 1(see col. 5 lines 1 – 35, col.4 lines 9 –27, col. 3 line 60 – col. 4 line 8).

As to claim 14, Augart teaches the method of claim 12, further comprising:  
determining whether the second address is contactable and wherein the second hop  
count exceeds the first hop count by one hop (see col. 3 line 60 – col.4 line 28).

As to claim 15, Augart teaches the method of claim 12, wherein the time to live is  
equal to the second hop count (see col. 3 line 60 – col.4 line 28).

As to claim 16, Augart teaches the method of claim 12, wherein in the  
determining step per-packet load balancing is in effect when at least two different  
routers responded to the at least one test packet (see col. 3 line 60 – col.4 line 28).

As to claim 17, Augart teaches the method of claim 12, further comprising, when  
per-packet load balancing is in effect: instantiating a cloud between the first router and a  
selected subnetwork (see col. 3 lines 4 – 31).

As to claim 18, Augart teaches the method of claim 12, wherein the determining  
step comprises: first determining whether per-packet load balancing is in effect; and

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second determining whether at least one of per-destination and per-source/destination load balancing is in effect (see col. 3 lines 4 – 31).

As to claim 19, Augart teaches the method of claim 12, further comprising: determining whether or not asymmetry is present between the first and second routers (see col. 3 lines 4 – 31).

As to claim 20, Augart teaches the method of claim 12, further comprising: selecting, from the baseline topology, a third address associated with a third router, wherein the third router has an associated third hop count relative to the selected node and wherein the second hop count is less than the third hop count (see col. 4 lines 9 – 27 and col. 5 lines 1 – 35); transmitting a plurality of second test packets from the common source address to the common selected destination address, each of the second test packets having a time to live equal to or greater than the third hop count (see col. 3 lines 60 – col. 4 line 8); receiving a plurality of second responses associated with the second test packets (see col. 3 lines 60 – col. 4 line 8 ); and determining, based on the responses, whether per-packet load balancing is in effect at the second router (see col. 3 lines 4 – 32).

As to claim 21, Augart teaches a computer readable medium containing instructions operable to perform the steps of claim 12. (see claim 1).

As to claim 22, Augart teaches a logic circuit operable to perform the steps of claim 12 (see claim 1).

As to claim 23, Augart teaches a method for identifying per-packet load balancing, comprising: providing a baseline topology (see col. 5 lines 1 – 35);

selecting, from the baseline topology, first and second addresses associated with first and second routers, respectively, wherein the first router has an associated first hop count relative to a selected node and the second router an associated second hop count relative to the selected node and wherein the first hop count is less than the second hop count (see col. 4 line 9 –27);

transmitting a plurality of test packets from a common source address to a plurality of differing destination addresses, each of the test packets having a time to live equal to or greater than the second hop count; receiving a plurality of responses associated with the test packets(see col. 4 line 9 –27); and determining, based on the at least one response, whether one of per-destination and per-source/destination packet load balancing is in effect at the first router (see col. 3 lines 4 – 32).

As to claim 24, Augart teaches the method of claim 23, further comprising: selecting a subnetwork (see col.. 5 line 1 – 35).

identifying a first set of unique addresses within the selected subnetwork; creating a second set of unique addresses, wherein the second set is the union of the first set and a third set of router interface addresses associated with routers between the selected node and the selected subnetwork, wherein the first and second addresses are included within the third set (see 5 lines 36 – 67).

As to claim 25, Augart teaches the method of claim 23, further comprising:  
determining whether the second address is contactable and wherein the second hop count exceeds the first hop count by one hop (see col. 3 lines 60 – col. 4 line 28).

As to claim 26, Augart teaches the method of claim 23, wherein the time to live is equal to the second hop count (see col. 3 lines 60 – col. 4 line 28).

As to claim 27, Augart teaches the method of claim 23, wherein, in the determining step, one of per-destination and per-source/destination load balancing is in effect when at least two different routers responded to the at least one test packet(see col. 3 lines 60 – col. 4 line 28).

As to claim 28, Augart teaches the method of claim 23, wherein the determining step comprises: first determining whether per-packet load balancing is in effect; and second determining whether at least one of per-destination and per-source/destination load balancing is in effect (see col. 3 lines 4 – 31).

As to claim 29, Augart teaches the method of claim 23, further comprising:  
determining whether or not asymmetry is present between the first and second routers(see col. 3 lines 4 – 31).

As to claim 30, Augart teaches the method of claim 23, further comprising:  
selecting, from the baseline topology, a third address associated with a third router, wherein the third router has an associated third hop count relative to the selected node and wherein the second hop count is less than the third hop count (see col. 4 lines 9 – 27 and col. 5 lines 1 – 35)

transmitting a plurality of second test packets from the common source address to the plurality of differing destination addresses, each of the second test packets having a time to live equal to or greater than the third hop count; receiving a plurality of second responses associated with the second test packets (see col. 3 lines 60 – col. 4 line 8);

and determining, based on the responses, whether per-packet load balancing is in effect at the second router (see col. 3 lines 4 – 32).

As to claim 31, Augart teaches a computer readable medium containing instructions operable to perform the steps of claim 23.

As to claim 32 Augart teaches a logic circuit operable to perform the steps of claim 23.

Claims 33 – 41 do not teach or define any new limitations above claims 1-32 and therefore are rejected for similar reasons.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sargon N. Nano whose telephone number is (571) 272-4007. The examiner can normally be reached on 8 hour.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sargon Nano

Jun. 7 , 2007

  
ARIO ETIENNE  
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